check fermentation, favor putrefaction, and are excellent thickening agents. More important than the influence on weight, are the beneficent results noted with reference to mental and physical development and vigor, the increase of tissue tone, and the prevention of rickets and scurvy.

A Study of Achondroplasia.—Wheeldon (*Am. Jour. Dis. Children*, January, 1920) reports 6 cases, which he places in two groups. Three cases comprise the first group, in which the symptoms of dwarf growth were more prominent. In the second group are 2 cases, which showed the symptoms of infolding. The sixth case showed symptoms falling under both classifications. The 2 cases of the second group have a feature, which has never been described before, no mention of it being found in the literature. Each of these cases showed an arcuate kyphos with a point of greatest convexity. In 1 case it was in the dorsal region while in the other it was in the dorsolumbar. Roentgen ray showed a wedge-shaped vertebra at the point of greatest convexity. No disease of the spine could be found, so that the author took the stand that this peculiar vertebra was the result of Jansen's "amniopressure." The same force which presses on the two ends of the spine producing the kyphos might also very easily produce the wedge-shaped vertebra. Two cases of the first group had in addition to the ordinary symptoms of achondroplasia, certain bony changes which could be shown in the roentgen ray. The author believes that these changes are similar to those described by Ehrenfield. The name achondroplasia was chosen for this condition because the state is an aplasia of chondrium. It is characterized by symptoms of dwarf growth such as shortening of the extremities, vertebral column and chest and looseness of the skin, and also by symptoms of infolding, such as kyphosis base os cranii, sagittal narrowing of the foramen magnum, depression of the nasal bridge, narrowing of the choanæ, reduction in the size of the sella turcica with consequent reduction in size of the pituitary body, and changes in the spine. The changes are probably due to the smallness of the amnion except in rare cases. The pathologic changes consist mainly in a retardation of ossification of the epiphysis and diminished production of endochondral bone, while the periosteum produces a comparatively normal amount. These changes of achondroplasia are produced between the third and eighth weeks of intra-uterine life. Besides the deformities of the bone, the characteristic roentgenologic appearance of a long bone under examination shows that near the epiphyseal ends the diaphyses become cup-shaped producing a T-shaped outline without any disturbance of the epiphyseal line or zone of proliferation, though these may be uneven and take on more or less fantastic shapes as compared with those of a normal individual. All of the cases presented in this paper bear out all that has been said and in addition two of them show a new symptom, a wedge-shaped vertebra, which falls in the symptoms of infolding and fortifies the belief that the state of achondroplasia is produced by the smallness of the amnion.

Calcium Metabolism of Infants and Young Children, and the Relation of Calcium in the Stools to Fat Excretion.—Holt, Courtney and Fales (*Am. Jour. Dis. Children*, March, 1920), in this, their second contribution on this subject, take up the study of children on a mixed diet. They found that with children taking a mixed diet, the absorption of calcium per kilo was lower than that of children taking modification of cow's milk, averaging, when the intake was adequate, 9.955 grams of calcium oxide per kilo. The average daily excretion of calcium oxide in the stools of children taking a mixed diet was 0.87 gram. In regard to the calcium absorption and excretion in relation to fat intake, it was found that the calcium oxide intake per kilo in children taking mixed diets was lower than that of infants, the average for 79 cases being 0.108 gram per kilo. The absorption of calcium oxide when the intake of calcium oxide was more than 0.09 gram per kilo in nearly every case exceeded 0.03 gram per kilo, with an average of 0.055 gram. When the intake was only 0.09 gram per kilo or less the absorption rarely exceeded 0.03 gram per kilo, and in several cases there was a negative balance, the average being only 0.015 gram. The percentage of the calcium intake absorbed when the intake exceeded 0.09 gram per kilo averaged 40.4 per cent.; when the intake was 0.09 gram or less the absorption generally averaged only 20.3 per cent. The inference may, therefore, follow that an intake of at least 0.09 gram of calcium per kilo is necessary to ensure a good absorption by children taking a mixed diet. The best absorption of calcium oxide was observed when the intake of fat exceeded 3 grams per kilo, and when at the same time for every gram of fat there was in the diet from 0.03 to 0.05 gram of calcium oxide. This is a somewhat lower proportion of calcium oxide to fat than was needed to ensure good absorption of calcium oxide by infants taking modifications of cows' milk. When calcium in the form of chalk mixture (calcium carbonate) was added to the diet there was a greatly increased absorption of calcium. When calcium was added in the form of calcium acetate or as calcium phosphate the absorption was not increased. The excretion of calcium was not so closely related to the intake of calcium as in the case of infants taking modification of cows' milk, and was not related at all to the fat intake. A very small intake of calcium resulted either in an absorption not much greater than the amount normally excreted or in a negative balance. The excretion of calcium in the stools was not at all related to the excretion of fat, but bore some relation to the excretion of fat as soap. However, in the constipated stools, which contained the most soap, the calcium excretion was not as great as in the normal stools when the intake of calcium oxide was the same. The calcium lost as soap in the stools of normal children taking a mixed diet was in most cases an insignificant part of the calcium intake. The calcium formed a small part of the total solids of the stools of infants taking modifications of cows' milk. The calcium percentage of total solids was lower in acid than in normal or constipated stools. The two factors chiefly affecting the percentage of calcium in the stools of children taking a mixed diet were the amount of calcium intake and the reaction of the stools. The soap percentage of the total solids followed on the average the variation in the calcium percentage of the total solids. The absorption of calcium by children with chronic intestinal indigestion was extremely low. In the only instances in which the absorption was near the normal both the calcium and fat intake were high. The excretion of calcium in the stools was very high, except when the intake was unusually low. The excretion of total fat and of fat as soap was very high, but was not parallelled by the calcium excretion. The calcium absorption of children with acute rickets was lower than that of children who were normal, even though the calcium intake was ample. The calcium excretion in the stools was somewhat higher than the average excretion in the stools of normal children. During recovery from rickets the absorption of calcium was higher than the average for normal children. This improvement accompanied the taking of cod-liver oil or additional butter, with a diet containing an ample amount of calcium. The calcium excretion in the stools of children recovering from rickets was lower than that in the stools of normal children. Cod-liver oil increased the absorption of calcium, except in cases in which the intake of calcium or fat was very low. The substitution of vegetable fats for milk fat did not affect the calcium metabolism of children taking a mixed diet.

An Early Diagnostic Sign in Basilar Meningitis.—GINGOLD (*Arch. Ped.*, January, 1920) reports a case illustrating this diagnostic sign of early meningitis. He calls this a "reflex" strabismus. It is elicited by flexing the head on the chest. When this is done either a bilateral or unilateral strabismus develops which will last as long as the head is kept flexed and disappears as soon as the head is relaxed. In many cases the strabismus is accompanied by a retraction of the upper eyelids. He has also noticed a contraction of the pupils in some cases. During a period of seven years of observation "reflex" strabismus was present in the early stages of almost every case that came under his observation. In the late or paralytic stage flexion of the head fails to produce strabismus. By means of this sign he has been able to make a diagnosis of basilar meningitis days before any other meningitic symptom appeared. The difficulty of making a positive diagnosis of tuberculous meningitis in the early stages of that disease is well known. In most cases onset is gradual, and the symptoms are vague and indefinite. There may be no other sign than those of vague digestive disturbance for days or weeks. The diagnosis is especially difficult in young infants since the yielding cranium keeps the intracranial pressure below the fatal limits and often weeks will pass before definite signs appear.

Clinical Interpretation of Scarlatinoid Rashes.—SCHOLTZ (*New York Med. Jour.*, February 21, 1920) offers an interpretation based upon a study of symptomatology, pathology and pathogenesis. He says that scarlet fever rash is not a well-defined and distinct dermatological entity and cannot be differentiated from the rest of scarlatinoid rashes; it is merely a specific type of toxic scarlatinoid erythemata. Scarlatinoid erythema is not an independent clinical entity but merely a symptomatic erythema caused by all varieties of systemic toxins. The differentiation of scarlatinoid erythemata cannot be made on purely dermatological grounds, but essentially on the associated symptoms and the mode of development. Nosologically scarlatinoid erythemata should be regarded as erythematous types of the great generic group of erythema multiforme.